

THAT WHICH IS CLAIMED:

1. An isolated nucleic acid molecule selected from the group consisting of:
- a) a nucleic acid molecule comprising a nucleotide sequence having at least 85% sequence identity to the nucleotide sequence of SEQ ID NO:2, or the nucleotide sequence of the cDNA insert of the plasmid deposited with ATCC as Accession Number PTA-1643, wherein said nucleotide sequence encodes a polypeptide having carboxypeptidase activity;
  - b) a nucleic acid molecule comprising a fragment of at least 50 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:2, or the nucleotide sequence of the cDNA insert of the plasmid deposited with ATCC as Accession Number PTA-1643,
  - c) a nucleic acid molecule which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:1, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number PTA-1643, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number PTA-1643,
  - d) a nucleic acid molecule which encodes a polypeptide having carboxypeptidase activity comprising the amino acid sequence of SEQ ID NO:1, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number PTA-1643, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule comprising the complement of SEQ ID NO:2 under stringent conditions; and
  - e) a nucleic acid molecule comprising the complement of a), b), c), or d).
2. The isolated nucleic acid molecule of claim 1, comprising a nucleotide sequence having at least 95% sequence identity to the nucleotide sequence of SEQ ID NO:2, or the nucleotide sequence of the cDNA insert of the plasmid deposited with

ATCC as Accession Number PTA-1643, wherein said nucleotide sequence encodes a polypeptide having carboxypeptidase activity, or a complement thereof.

3. The nucleic acid molecule of claim 1 further comprising vector nucleic acid sequences.

4. The nucleic acid molecule of claim 1 further comprising nucleic acid sequences encoding a heterologous polypeptide.

5. A host cell which contains the nucleic acid molecule of claim 3.

6. The host cell of claim 5 which is a mammalian host cell.

7. A non-human mammalian host cell containing the nucleic acid molecule of claim 1.

8. An isolated polypeptide selected from the group consisting of:

a) a polypeptide having carboxypeptidase activity which is encoded by a nucleic acid molecule comprising a nucleotide sequence having at least 85% identity to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:2, or the nucleotide sequence of the cDNA insert of the plasmid deposited with ATCC as Accession Number PTA-1643;

b) a polypeptide having carboxypeptidase activity, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising the complement of SEQ ID NO:2, or the nucleotide sequence of the cDNA insert of the plasmid deposited with ATCC as Accession Number PTA-1643 under stringent conditions;

c) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:1, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number PTA-1643, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:1; and

d) a polypeptide having at least 85% sequence identity to the amino acid sequence SEQ ID NO:1, wherein the polypeptide has carboxypeptidase activity.

9. The isolated polypeptide of claim 8 comprising the amino acid sequence  
5 of SEQ ID NO:1.

10. The polypeptide of claim 8 further comprising heterologous amino acid sequences.

10 11. An antibody which selectively binds to a polypeptide of claim 8.

12. A method for producing a polypeptide selected from the group consisting of:

a) a polypeptide comprising a fragment of the amino acid sequence of  
15 SEQ ID NO:1, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number PTA-1643, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:1, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number PTA-1643;

20 c) a polypeptide having carboxypeptidase activity, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising the complement of SEQ ID NO:2, or the nucleotide sequence of the cDNA insert of the plasmid deposited with ATCC as Accession Number PTA-1643,

d) a polypeptide having at least 85% sequence identity to the amino  
25 acid sequence of SEQ ID NO:2, wherein said polypeptide has carboxypeptidase activity; comprising culturing the host cell of claim 5 under conditions in which the nucleic acid molecule is expressed.

13. A method for detecting the presence of a polypeptide of claim 8 in a  
30 sample, comprising:

a) contacting the sample with a compound which selectively binds to a polypeptide of claim 8; and

b) determining whether the compound binds to the polypeptide in the sample.

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14. The method of claim 13, wherein the compound which binds to the polypeptide is an antibody.

15. A kit comprising a compound which selectively binds to a polypeptide of claim 8 and instructions for use.

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16. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample, comprising the steps of:

a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and

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b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample.

17. The method of claim 16, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

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18. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1 and instructions for use.

19. A method for identifying a compound which binds to a polypeptide of claim 8 comprising the steps of:

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a) contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a test compound; and

b) determining whether the polypeptide binds to the test compound.

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20. The method of claim 19, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

a) detection of binding by direct detecting of test compound/polypeptide binding;

5 b) detection of binding using a competition binding assay;

c) detection of binding using an assay for carboxypeptidase activity.

21. A method for modulating the activity of a polypeptide of claim 8 comprising contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a  
10 compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

22. A method for identifying a compound which modulates the activity of a polypeptide of claim 8, comprising:

15 a) contacting a polypeptide of claim 8 with a test compound; and

b) determining the effect of the test compound on the activity of the polypeptide to thereby identify a compound that modulates the activity of the polypeptide.